

Appl. No. : 10/753,091
Filed : January 7, 2004

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REMARKS

Claims 1-52 are pending in the present application and are presented for reconsideration and further examination in view of the following remarks.

Discussion of Rejections of Claims under 35 U.S.C. § 103(a)

Claims 1, 2, 4, 5, 10-12, 14-17, 19, 20, 23-27, and 51 were rejected under 35 U.S.C. 103(a) as being unpatentable over Duggal et al. (US 6,538,375) in view of Desurvire et al, (US 5,892,876) and further in view of Lester (US 6,091,085). Claims 28-31, 33-40, 44-46, 48-50, and 52 were rejected under 35 U.S.C. 103(a) as being unpatentable over Duggal in view of Desurvire and further in view of Lester, and further in view of Inditsky (US Publication 2003/0016930) and Bulovic et al. (US 6,297,495). Applicant respectfully traverses these rejections.

To establish a *prima facie* case of obviousness a three-prong test must be met. First, there must be some suggestion or motivation, either in the references or in the knowledge generally available among those of ordinary skill in the art, to modify the reference. Second, there must be a reasonable expectation of success found in the prior art. Third, the prior art references must teach or suggest all the claim limitations. *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991).

The combination of a reflective outer layer with imperfections in at least one of the layers of the optical device as suggested by each of independent Claims 1, 16, 28 and 37 is not obvious in view of Duggal and Lester, because there is no suggestion or motivation to modify Duggal such that at least one of the layers has imperfections, as taught by Lester.

Duggal discloses an optical device comprising an optical fiber and a light source. The light generated by the light source is channeled through the core of the optical fiber and emitted through the edge of the fiber. (See Duggal at Abstract; Fig. 17; col. 13, lines 6-35.) Lester relates to a light source comprising a plurality of layers wherein at least one of the layers has imperfections. The imperfections are introduced to increase the efficiency that light is coupled out of the device through one electrode. (See Lester at col. 1, lines 21-36; col. 3, lines 54-64.)

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It was stated in the Office Action that the motivation to modify Duggal such that at least one of the layers has imperfections, as taught by Lester, is to improve light coupling efficiency. Applicant respectfully disagrees for the reasons presented below.

The optical devices in Duggal and Lester are of different structures and designed for different purposes. In Duggal, a light source is configured to pump light into the core of the optical fiber and cause light to be emitted through the edge of the fiber. To pump light into the core, the light source comprises a transparent inner electrode and a reflective outer layer. Here light coupling efficiency is improved by causing more light to be pumped into the fiber core. Lester discloses a light source configured to emit light outwardly. The light source includes an outer electrode made at a transparent material so that the light can pass through. Here light coupling efficiency is improved by causing more light to be pumped out. Therefore, Lester at most teaches a way to improve light coupling efficiency, i.e., how to couple more light out, in a particular structure as disclosed in Lester. There is no suggestion or motivation to couple more light inwardly toward a fiber core as found in Duggal.

Moreover, simply replacing the light source in Duggal with the light source disclosed in Lester does not produce an optical device as recited in independent Claims 1, 16, 28 and 37. Lester fails to teach or suggest a light source having a reflective outer layer as recited in these claims. Adding a reflective outer layer to Lester would indeed make the device inoperable for its intended purpose of allowing light to pass through the electrode.

Therefore, it would not have been obvious to one of ordinary skill in the art to combine Lester and Duggal with regard to Claims 1, 16, 28 and 37. Withdrawal of the rejections of Claims 1, 16, 28 and 37 is respectfully requested.

Dependent Claims

Claims 2-15, 17-27, 29-36, 38--52 are dependent either directly or indirectly on the above-discussed independent Claims 1, 16, 28 or 37. Applicant respectfully submits that pursuant to 35 U.S.C. § 112, ¶4, the dependent claims incorporate by reference all the limitations of the claim to which they refer and include their own patentable features, and are therefore in condition for allowance. Therefore, Applicant respectfully requests the withdrawal of all claim rejections and prompt allowance of the claims.

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Conclusion

In view of the foregoing remarks, it is respectfully submitted that the present application is in condition for allowance. Should the Examiner have any remaining concerns which might prevent the prompt allowance of the application, the Examiner is respectfully invited to contact the undersigned at the telephone number appearing below.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: 3/9/06

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